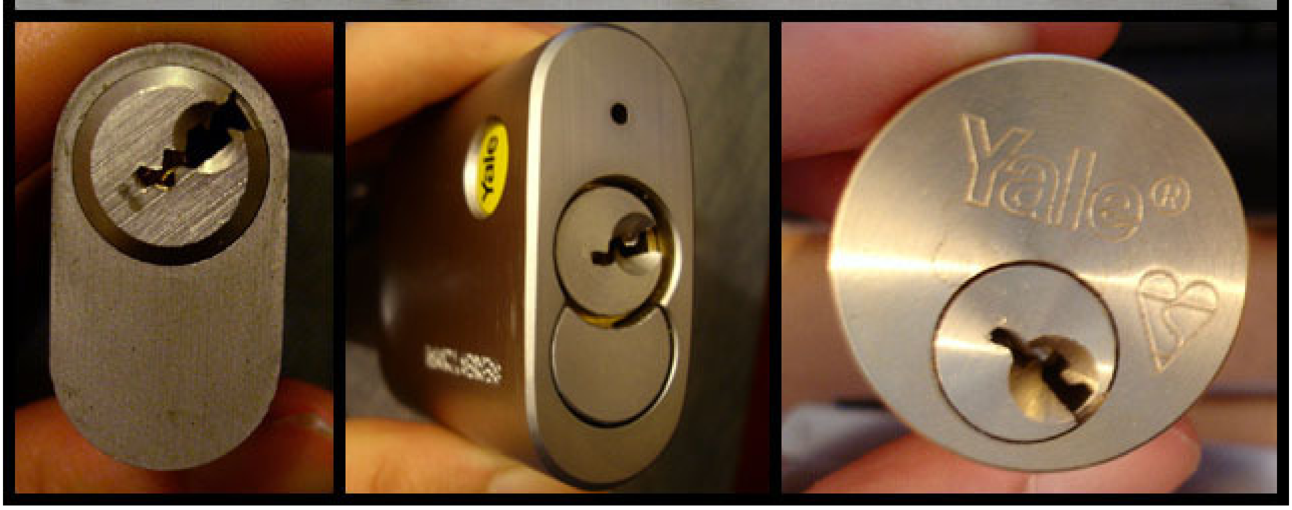


Lock Picking: Detail Overkill

For those who want more than just the basics



M. Gibson



INTRODUCTION

My name is Solomon, and I am a pickaholic. Actually, my name is Mike. Solomon is the handle I use on various forums dedicated to picking. And this is my guide to picking pin tumbler locks. The most comprehensive one you're likely to find, I might add. I've put together everything a newbie could possibly want to know, all in more detail you could ever ask for. All the good stuff, none of the shite.

This isn't just another "how to pick a lock" type thing. This is an over-the-top detailed account of everything I've learned over a period of 2 years, obsessively picking locks. In that time I've spent an hour on average picking, every day, whether it be a pile of new locks or the same old crap I've picked 100 times before. Doesn't mean I can pick every lock, I'm not a miracle worker... once in a while I even run into an average one which gives me the finger. That's life. But as for the massive and ever-growing pile I have picked, those aren't accidents, so grab yourself a coffee and start learning.

I'm writing this because there are a lot of people out there with 30 different books on picking, who can't open jack shit or still rely mostly on luck. It's not that books don't explain things properly, cos they do, and with enough practice that's genuinely all you need. But I was new once, and I know what it's like to want more and more information. More detail. And that's something that all the other stuff out there is sorely lacking... it all explains the same principles, in just about enough detail that you'll understand the basics and be able to figure it out on your own.

Which you will, eventually. Everyone develops their own technique, but you have to start somewhere, and besides the theory there isn't much out there on specific technique. I for one would've loved this shit back in the day, so here it is. Detail overkill. If you wanna learn how to pick locks, and this isn't detailed enough for you, then... I just don't fucking know.

As well as the really meaty stuff, I'll be covering a bunch of common topics/questions which I've noticed crop up on the forums a lot, so pretty much anything you'd wanna know as a newbie will be covered here. If you have any questions about pin tumbler locks after reading through all of this, as in genuine ones and not stupid ones, then I'll add it somewhere.

DISCLAIMER MOTHER FUCKER

In case you hadn't noticed, I swear a bit. If you don't like swearing, you're not gonna learn how to pick locks. Not only because I swear so much, but because this hobby will make you swear too.

Now for the serious bit. This is all straight out of my own head, and from my own personal experience picking literally hundreds of different locks. Nothing is copied and pasted, and there's no stupid bullshit I just assumed was right and decided to write down, it's all cold hard fact. I don't have any paper credentials whatsoever, I'm not a locksmith or an engineer. But you don't need to be. Just be thankful I'm not some kid who watched a guy pick his piece of shit deadbolt with a paperclip on youtube and thought it was awesome so I'd write my own tutorial.

It's taken me a couple of hours each evening for just over a week to get everything written down the way I want it, and all the pictures/diagrams are my own as well so I'd appreciate it if you didn't steal the fucking thing and put your own name on it. I didn't bother putting little copyright things on any of the pics cos it's not copyright and that'd be stupid. I'm not gonna be an internet tough guy and make threats, just don't do it... if you wanna share, just link it and give credit where it's due. I really don't give a shit as long as you're not making anything off it.

I've done my best here to make this worth your time instead of re-wording the basic theory and technique like everyone else seems to. As far as the principles go, I pretty much had to... even at that, I've put a lot of time into explaining everything in as detailed and clear a manner as possible.

<u>Contents:</u>

Part 1 - How a pin tumbler lock works

Section A: The mechanism itself

Section B: How the key works

Section C: Tolerances and the binding defect

Section D: Pin states

Part 2 - Picking techniques

Section A: The basics - How to hold the tools

Section B: Single pin picking - The speed bump method

Section C: Oversetting

Section D: Raking

Section E: Security pins

E.1 - Spool pins

(a) How to set a spool pin

(b) True binding order vs. forcing false

(b.1) Forcing false

(b.2) True binding order

E.2 - Serrated pins

Part 3 - FASQ (Frequently asked stupid questions)

Part 1.

How a pin tumbler lock works

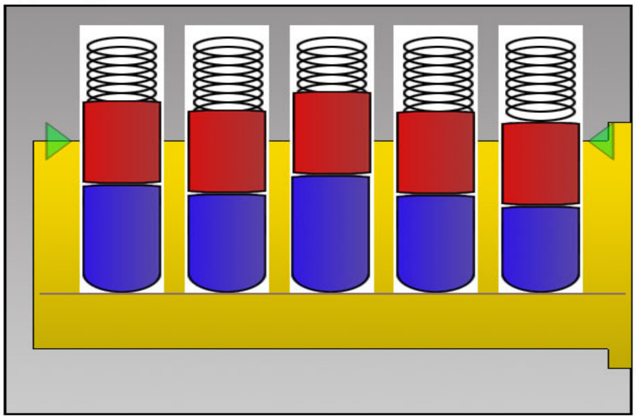
The first step to learning how to pick a lock is to understand how it works, and why the components can be exploited in the first place. This is something a lot of people don't really take the time to understand properly, because they either don't think it's necessary, or they can't be bothered. I can't stress this enough, pay fucking attention to this section above all else and make sure you understand everything 100% before you even think about sticking those picks anywhere.

Section A: The mechanism itself

The basic pin tumbler lock is pretty simple. I'm not gonna go into their history or any of the other stuff people like to throw in for filler, let's just stick to the facts. Before we begin, please note that technical diagrams are not to scale. All diagrams and descriptions are for rim or mortise type cylinders which have pins at the top of the keyway. Euro profile cylinders, which typically have pins at the bottom of the keyway, are the same mechanism just in different format. They're picked in the exact same way, but to avoid confusion we'll just focus on the one format.

With that out of the way, a pin tumbler lock consists of some basic main parts which you'll see in the diagram below. The pins are at rest, ie. their normal position when no key is inserted:

Fig. 1: Cylinder at rest.



The components you can see are:

1. Shell (grey) - the main body of the lock, in which the plug sits.

2. Plug (yellow) - this is where the key goes. There is a cam or tailpiece attached to the back of the plug which, when rotated, is what actually throws the bolt or retracts the latch and opens the lock.

The point where the plug and shell separate is called the shear line, and is indicated by a pair of green arrows.

3. Pin chambers (white) - The series of chambers which are drilled through the shell and into the plug, which is where the pins live. Not a component as such, but the relation between the pins and their respective chambers is very important.

4. Key pins (blue) - the pins which come into contact with the key. These are all different lengths and always sit inside the plug, below the shear line. Their lengths correspond to the cuts on the key. The deeper the cut, the longer the key pin and the less it needs to be lifted in order to shear.

5. Driver pins (red) - The pins which, in the locked position, block the shear line and prevent the plug from turning. Typically these are all identical in length, although higher quality locks generally contain different lengths of drivers. This isn't random, they're longer or shorter depending on the length of their corresponding key pin. The purpose of which is to make the pin stacks equal lengths, in order to prevent decoding/overlifting attacks. Balanced drivers have no effect on picking.

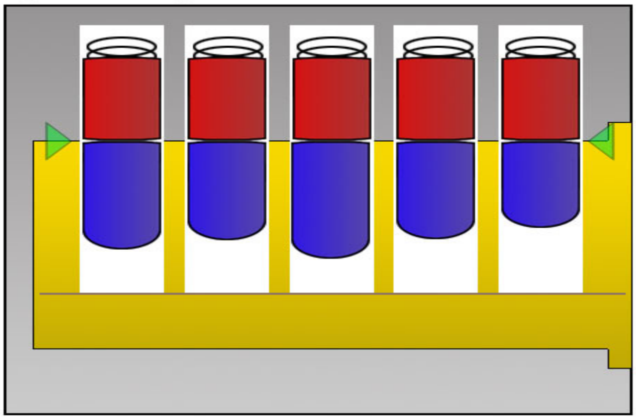
6. Springs (black) - to keep everything from rattling around like a skeleton interfering with itself.

Section B: How the key works

When we insert the correct key, the pin stacks will be lifted to their correct heights. The split between the key pins and drivers rests exactly at the shear line, and the plug is free to rotate. Please excuse the absence of a key in the following pictures, the diagrams aren't to scale and it was hard to draw a key without it looking like an absolute heap of shit. I know it doesn't matter, but it was annoying me and messing up my nice diagrams. You'll get the idea.

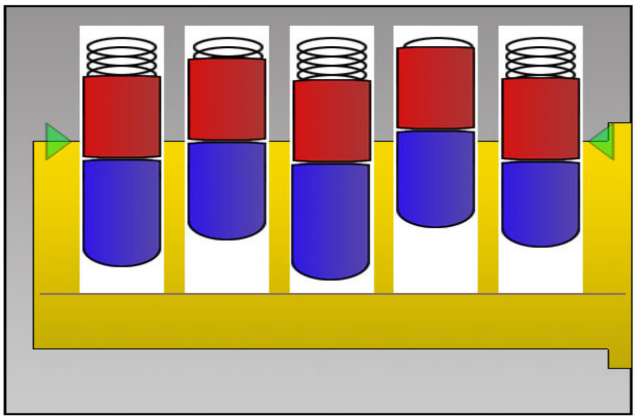
So here is the correct key:

Fig. 2: Correct key inserted.



And here's an example of an incorrect key. As you can see, the shear line is still blocked because the pin stacks are misaligned:

Fig. 3: Incorrect key inserted.



Even if only one pin is partially blocking the shear line, it's enough to stop the plug from turning.
So... how does picking work? Well, it all boils down to machining tolerances. Read on...

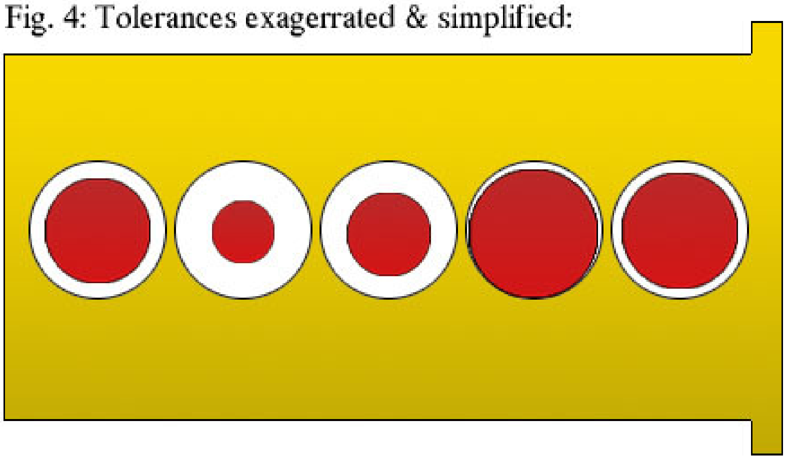
Section C: Tolerances and the binding defect

As you know, the key aligns all the pin stacks to their correct heights simultaneously. You'd think that without the key, this just can't be done... and you'd sorta be right. While possible, the chances of doing so would be extremely slim. But we can manipulate the pins individually, and this is made possible thanks to tolerances. Even with all our technology, it's physically impossible to make all the components exactly the same dimensions... and this is what causes the binding defect.

When we apply a turning pressure to the plug, only one of the pins will be binding against the inside of its chamber. If everything was perfectly machined, then all of them would bind simultaneously, and picking with basic hand tools would be impossible. But in reality, this just isn't the case. The pin chambers are different diameters, they're not perfectly circular, and they're misaligned. The pins are all different as well, not identical in size or shape like you might think. The differences can't be seen with the naked eye unless the lock is very poorly made, but these defects are all present in even the highest quality locks, and this is what makes picking possible.

Below is an exaggerated example. To keep the head scratching to a minimum, the pin chambers are all the same size and everything is the same shape, chambers are perfectly aligned etc... the only variable here is the diameter of the pins. It's nowhere near this simple, but it's the easiest way to explain:

Fig. 4: Tolerances exagerrated & simplified:



In this lock, if we were to apply tension in either direction, pin 2 would bind first because it's the biggest. It's physically impossible for any of the others to bind at this point, anyone can understand this. Pin 2 is blocking the plug from rotating, but the rest aren't making any contact with their chamber walls whatsoever. We would feel pin 2 binding, whereas the others would just spring up and down without any resistance. More on this shortly.

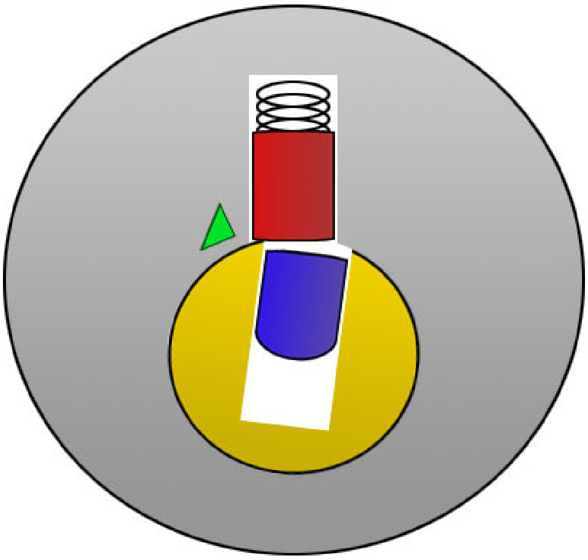
When we apply tension and lift this pin, once it reaches the shear line, three very important things will happen:

1. The rotation of the plug will cause the pins to shear.

2. The next binding pin will stop the plug from rotating any further. In this case, it will be pin 1 since it's the next largest.

3. Most importantly, that slight rotation means the driver we just lifted is now resting on top of the plug. If you can't picture what this looks like, here is an exaggerated example:

Fig. 5: Small ledge created by plug rotation



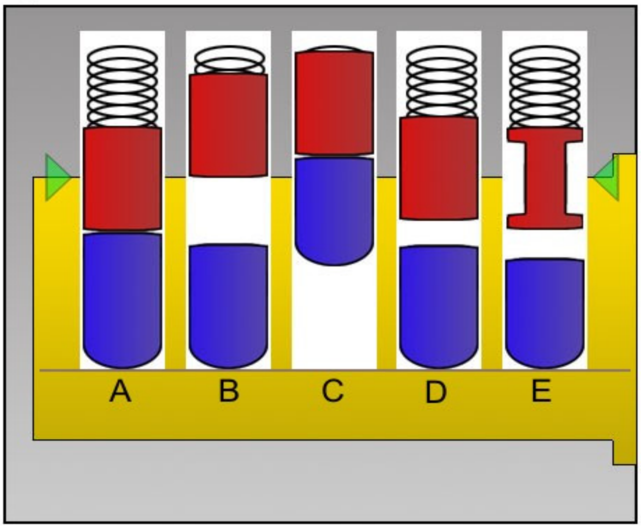
The driver stays trapped above the plug, on that little ledge just to the side of the chamber, and the key pin drops back down. Now the pin stack in chamber 1 is binding, we lift that stack until the pins shear, and this same process continues until the lock opens. In this example, the binding order would be 2-1-5-3-4. And once 4 sets, the plug would rotate freely and open the lock. The binding order is completely random by the way, so don't go trying to pick every lock in this order like a dumbass. Even in 2 identical locks with the same key, the binding order will be completely different.

That covers the principles of binding and how pins stay set, so now you'll be able to understand all that funk you're feeling when you start to pick your first lock. Like I said, the tolerances are actually a mixed variety of imperfections working together and are much smaller than I've depicted - but generally speaking, the binding pin is pretty easy to identify. Higher quality machining means tighter tolerances, which makes it harder to tell (since multiple pins will be binding at once), but you'll still be able to tell which is binding more than the others. Don't give this too much thought, it all just comes down to practice and we'll be examining this in all its wonderful detail in just a moment.

I know you're dying to get started, so let's take a quick look at the different pin states and move on.

Section D: Pin states

Fig. 6: Pin states



From left to right:

A) At rest - the normal position before any picking takes place. The pins will be pushed down into the keyway and sit on top of a ward in the keyway.

B) Set - driver resting above the plug, key pin inside, shear line clear.

C) Overset - key pin is lifted too high and blocking plug rotation. We'll talk about this in detail later.

D) Under set - driver pin still blocking plug rotation. Not lifted high enough.

E) False set - an under set pin which gives the impression of being set, or has trapped the plug in an exaggerated rotation. We'll be examining this later as well.

OK. Now we can go.

Part 2

Picking techniques

Section A: The basics... How to hold the tools

You'd think this is pretty simple, but there are a number of things you should keep in mind if you want to optimise your performance.

When applying tension, only use one finger. You can position the wrench at the top or bottom of the keyway, it does-n't really matter a lot of the time so you can just do whatever is comfortable for you. It's wise to give yourself as much room as possible though; having the wrench taking up space in the bottom of the keyway makes it easier to overset pins or get your pick trapped. Sometimes the pins bind better with the wrench at the bottom, so if it doesn't cause any trouble, by all means do. See example below:

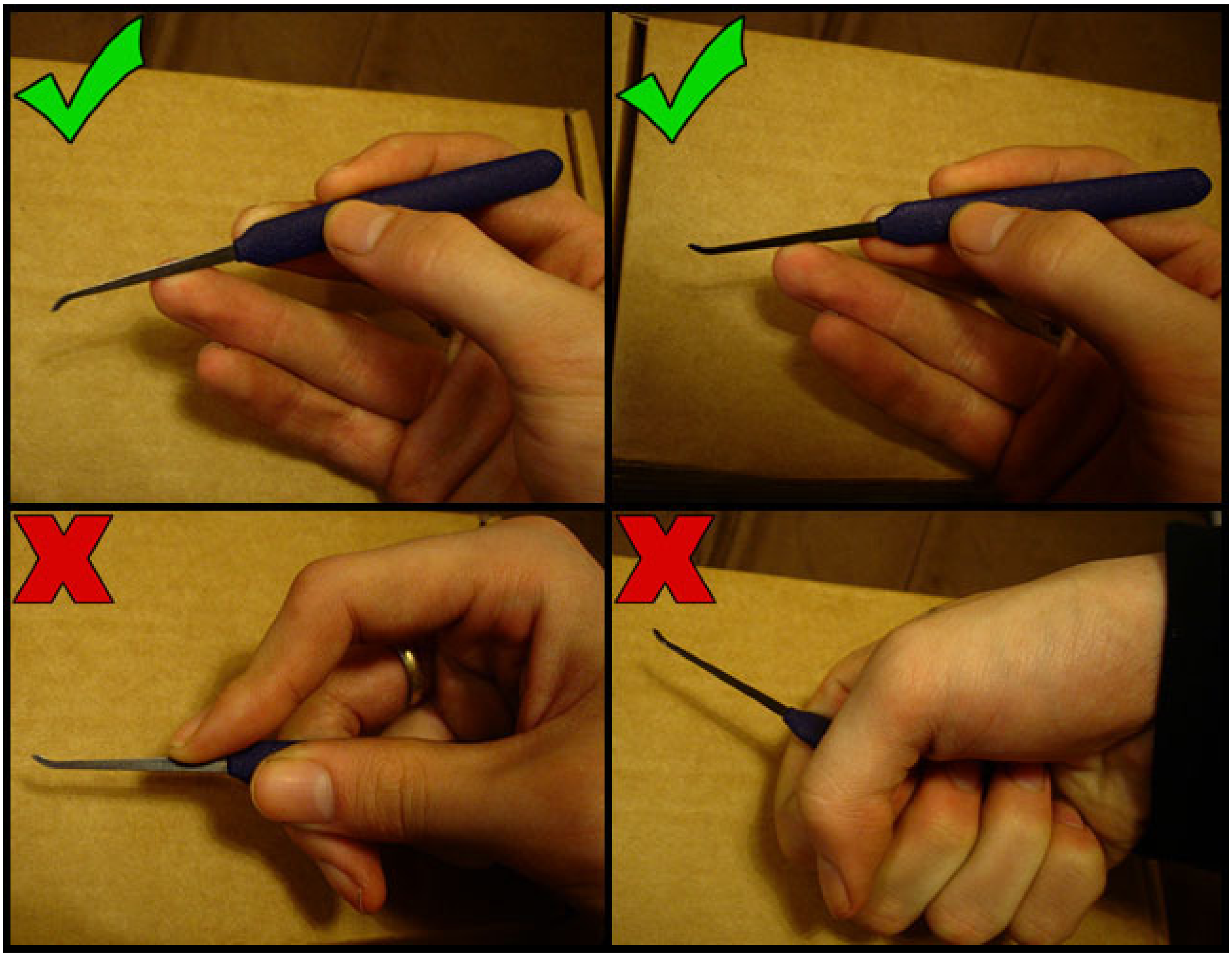


The wrenches supplied with pretty much all pick sets are designed more for bottom of keyway tension; a shorter wrench is more desirable for top of keyway but not compulsory. I find that if you trim a wrench down to about 8mm it's great for all-round use, it gets in good and deep for bottom tension and doesn't stick out so much that is loses grip when up top. The actual "handle" can be as long as you please, and can be twisted or not depending on your preference.

Another thing worth mentioning is that, when using top of keyway, it's good practice to keep the wrench from making contact with the front pin so you don't get any confusion with the binding. Most of the time it doesn't really matter if you're making light contact with it though.

If you want to make your own wrenches, the easiest way is to use the steel inserts from old windshield wipers. They're long strips of steel about 1mm thick, come in various widths, and are the same quality as any wrench you'd get with a pick set. The perfect all-round width in my opinion is 3mm; the 2mm ones tend to slip a lot but are good for smaller keyways. All you have to do is snip them to the length you want, cold bend with pliers, and tidy up any burrs with a flat file.

As for the pick, again you can do whatever you find comfortable. As long as you've got a nice relaxed grip and can move it without having to put your wrist into it, you're good to go. Personally I use my thumb and middle finger to grip the handle, just before the shaft. I keep my ring finger on the shaft to get maximum feedback. Doesn't matter if the pins are at the top or bottom of the keyway. See example below:



This way might not be comfortable for you, so experiment and see what you like. Just don't hold it like a knife, or in such a way that your wrist is doing all the movement, like in the bottom examples. Remember, you're moving small pins by small amounts. All movement should be done with the fingers.

And that's that covered.

Section B: Single pin picking - The speed bump method

No, this doesn't have anything to do with bump keys. If you wanna learn how to bump locks, go to youtube.

Single pin picking is the art of manipulating the pins one by one, by exploiting the tolerances we looked at earlier. I recommend you start off with a short hook. And if you skipped straight to this section without getting to grips with the concept of binding and how the mechanism actually works, your ass is in detention. Go back to the basics first.

Ready? Well it's about fucking time.

This is a method you can use to find the optimal tension for any given lock - which is the most important step, and lays the groundwork to get it open with minimal frustration. I'll also give you a complete rundown of what to do and what to feel for. I'm not the only person who does it this way, it's not a groundbreaking new technique... I just haven't seen anyone else explain it in real detail.

Just before we start, a word on tension. Everyone says you need barely any pressure on the wrench... which is true, but just because a lock will open with the bare minimum, it doesn't mean you HAVE to use that amount. There is actually a range of tension you can get away with, so I'll be teaching you how to find that range. That way, you can choose the amount you're most comfortable working with. In most cases, you really don't need to go too low.

As a beginner, using the absolute minimum, you probably won't have a clue what's going on inside the lock because the feedback will be so subtle. That was my experience, anyway. Don't get me wrong, I opened plenty of locks by applying a hairs amount of tension and working the pins... but I couldn't tell you the binding order or how high to lift any of the pins to save my life. I just felt a set here and there and after a while the lock opened, there was no real consistency. And now that I actually have developed the touch for minimal tension, ironically, I've found that it isn't necessary. So this is why we're gonna focus on the tension range, and not the super duper lightest amount.

The technique I use is as follows:

1. Start with a "medium" amount of tension. When I say that, I don't mean half way between snapping the wrench and barely touching it. It's still a light-ish amount, just not light-light. The easiest way to explain this is for you to put a standard (non-twistflex) tension wrench into a lock and hold it in your hand. Where your finger would push on the wrench, hold it just above one of the keys on your keyboard and push it down. Don't actually tension the lock itself, it's just there to keep the wrench from flipping around so you're pushing on the flat part. I want you to see how much it takes to just about hold it down and no more.

Now add a little more on top of that... we'll be using this as your starting point.

I'm using a standard cheapy keyboard so I dunno if this is the best way to explain for everyone, but it's not an exact science. Remember this isn't the amount you'll be using to actually pick it, very few locks will require anywhere near this much. It's just a starting point we'll be working from in order to find the range.

2. Insert your pick right to the back of the plug, and drag it very slowly back towards you and across the pins. As you do this, push the pick gently against the pins so you can feel them springing a little. Don't try to push them as deep as they'll go or anything like that, just use very gentle pressure. Think of it like drawing a soft line on a page... just not with a pen that's desperately low on ink. You should be able to feel a soft springiness to the pins as it rolls over each one.

What you're looking for is a pin which feels more solid than the others. This is the binding pin, and the reason I call this the speed bump method is because when you hit it, it's like the pick has hit a little bump. A lot of people push each pin individually to find which one is binding, which you can do if you want. As long as you find it, that's the main thing.

The more tension you apply, the more obvious the binding pin will be, but I wouldn't recommend using anything heavier than what I described before. Honestly, the binding pin will stick out like a sore thumb under that amount so there's really no need to start any higher.

If you can't feel anything binding under that amount of tension, assuming you're not being a complete dumbass and pushing against the warding, it's usually because the binding pin is the one right at the back. Since it's the first pin you're in contact with, it just feels like part of the back of the lock... so if you can't feel any binding, don't jump the gun and start piling on more tension. Carefully get onto the back pin and see if it gives any resistance when you push on it. I guarantee if you can't feel any binding, it'll be the pin at the back you need to be focusing on... if you're having a hard time feeling the back pin, roll gently from front to back over the pins instead until you get onto it.

If it's definitely not the back pin, then you can try more tension. Some locks do take a fair amount. Anyway, when you've identified the first binding pin, move onto step 3.

3. Position the very tip of the pick on the middle of the pin which is binding. You might find it helpful to roll the pick back and forth over it a little to get the position just right... you don't need to be exactly in the middle of the pin, but it's good practice. Next you want to apply some pressure to the pin... think about the amount it takes to push a non-binding pin all the way down and use that.

4. Slowly start to reduce the amount of tension you're applying to the plug. The pin will start to move under the pressure of the pick at some point, so try your best to hold the pick pressure steady and concentrate on the tension rather than pushing harder on the pin to get it to move. You're already using quite a bit of pick pressure here, so concentrate on the tension until you feel the pin start to move a little.

When you do feel it this, you can hold the tension there for picking if you want, although this is more to set a boundary so you know how much is too much. You can push the pins into place from here without too much force, but there'll be a fair bit of drag as the pins move. At this point you're using max tension for that lock, and whereas you're not at a ridiculous level, it's still more than necessary.

From here it's quite easy to find a balance between the pick pressure and tension. Just play around, making sure not to go over max. You want the pins to move easily, but at the same time you also want to feel the binding slightly as they move. It takes a while to really get the feel for what I'm talking about, but when you figure this out you'll be working with the best of both worlds... great feedback, and without the grunt.

BEFORE CONTINUING, PLEASE NOTE: When pushing any pin into place, you should aim to keep the pick shaft from interfering with the other pin stacks as much as possible. Don't hold the pick parallel to the cylinder as you're moving a pin into place, use a sort of levering action to ensure minimal contact with the other pins (ie. the tip goes up and the shaft stays as far down out of the way as possible).

Also, make sure to attack the pins from an angle rather than trying to get straight under them and levering upwards. It's not as easy to do it this way at first, but the reason we do all this is to help avoid oversetting. We'll be looking at this properly in the next section.

5. As you push the binding pin, when it comes to shear, you'll feel it set one way or another and you can then move onto the next binding pin. Once you've set that first pin, you can hold the tension at the same amount, or increase slightly as you set each one if necessary. You might want to increase tension to find the next binding pin although you can hold it steady, doesn't really matter.

How clear the sets feel depends on the lock... some you'll feel a very distinct click, both in the pick and wrench, and you'll hear a nice click as well. I've found in a lot of locks, mostly older ones, that the feedback is very dull and sometimes practically non-existent. You can feel the binding just fine, but as you actually push the pins into place, there's only a very dull click as each pin sets or they'll just come to a stop with no real indication of being set other than they've stopped moving.

You'd think that older would mean more worn, thus looser tolerances and nicer feedback - which is true, but when a lock is in use for a long period a time there's a fair amount of crud which builds up in there and it really kills those nice clicks you're looking for. Most of the time it doesn't cause any problems as long as you keep a mental note of the binding order.

This all sounds like a very complex process, which I guess it is, but it's actually pretty simple when you get the hang of it. Of course it'll take a lot of practice to get the feel for things properly, but after a while it'll be second nature and you'll do it without thinking. You can get onto the first binding pin, set it, and have the tension sussed all in a matter of seconds... and from there it can be very easy, or rage-inducing, depending on the lock you're up against.

Section C: Oversetting

Oversetting can be the simple result of carelessness, or a genuine problem caused by staggered pin configurations and/or crazy security pins. At times, it can be completely unavoidable, so I wanna look at it in some detail. Here you'll learn how to keep it from happening, and fix it when it does.

First and foremost, pushing too hard on a set pin will cause some (or all) of the other set pins to drop back down to their rest positions. With most average locks you can push set pins a little over the shear line and get away with it since they just fall back into place, but if you push too far then you're in shitville. Mostly though, as long as you don't intentionally try to force an already set pin, it's fine.

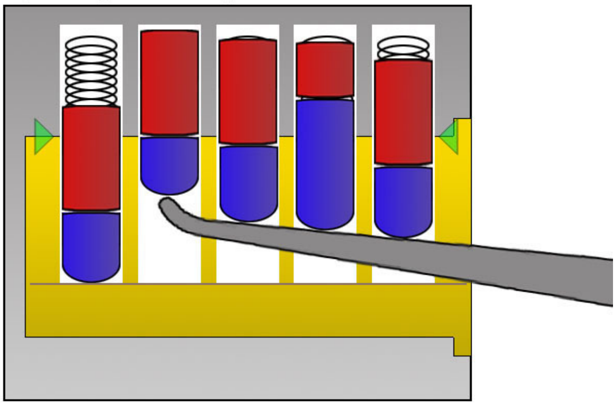
This is easy to avoid. Just be careful with the pick, and keep a mental note of which pins you've set... if you're ever in doubt about a pin, leave it alone and check the others first. If you've figured out the tension and a pin isn't moving under normal pick pressure, never try to force it. Simple as that.

It really is a massive help to keep at least a loose mental note of any pins you've set. Trust me, it's not hard to do, and you'll be especially glad you got into the habit when it comes to the higher quality stuff. If you map out what the lock is doing, even roughly, it means that if a shitload of pins reset on you then you're able to get back to the same point again nice and quickly to analyse what happened.

As well as using too much force like a jackass, you can overset pins with the pick shaft. Providing you're using the correct technique as described in the previous section, this can only really happen if you have pins which are considerably deeper setting than ones in front of them. There are actually two ways this can occur, and depends on the binding order.

In the diagram below, using a short hook you can see that by lifting pin 4 to its correct height, the shaft is pushing pin 2 too high. Ignore the other pins, we're just gonna focus on those two and what happens depending on the order they bind.

Fig. 7: Example of oversetting

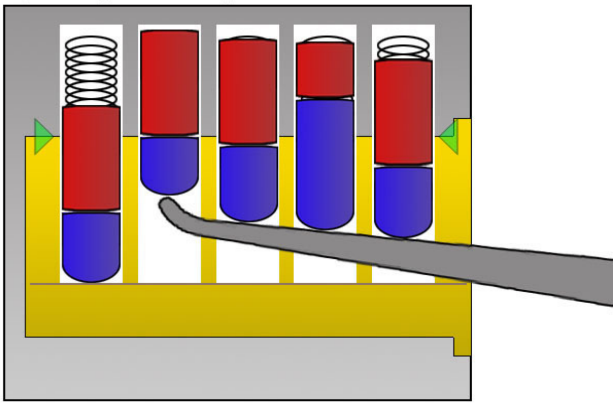


If pin 2 was the first pin to bind, it wouldn't be a big problem so we'll look at that first. We'd set pin 2, then feel 4 binding... pin 2 is very long and we now have to reach under it. So with this pick, we wouldn't be able to push pin 4 deep enough to actually set it because pin 2 would be pushed up by the pick shaft.

Cases like this are simple enough. Out comes a bigger hook to reach under pin 2 and set 4 deeper. In this instance, you'd only overset pin 2 if you tried to force pin 4 with a short hook like a jackass. This would result in an overset pin 2, pin 4 wouldn't set, and you'd probably reset other set pins (if there were any) in the process. You'd be pretty fucked, so don't do it. Simple rule, never try to force anything. If it doesn't wanna go, the first thing you should do is grab a pick with deeper reach and scoop under the ones which are in the way.

Like I said earlier, not all locks give nice crisp feedback, and some people worry about oversetting in these cases. Understandable, but trust me, you'd still figure it out. In this example, if you pushed pin 4 as far as you could without disturbing 2, you wouldn't feel any other pins binding so you'd know that pin 4 needed to be set deeper.

Fig. 7: Example of oversetting



Now let's look at what'd happen if 4 was the first to bind. This is a problem because, as you can see, 2 is above the shear line when pin 4 sets. I'm sure you can tell what happens... at the moment the plug shears pin 4, it rotates and binds pin 2 while it's above the shear line. It's gonna stay stuck there, and you wouldn't actually be aware of this at first, since when you go over pin 2 it'll just feel like a normal binding pin. Same sort of idea as before, it won't set no matter how far you push it - and since nothing else is binding, you'll know something is up with it.

This time though, instead of not being able to push it far enough, you'd find you could push it all the way without it setting... which tells you it's already gone past set and you're going the wrong way. As I'm sure you can imagine, it's not always this simple in practice, but that's the theory anyway.

If you identify a pin as overset, you need to reverse pick it back to the shear line. Sometimes multiple pins can overset, which is more complicated, but the general idea is to feel how many are binding when they shouldn't be and reverse pick until you hear that number of clicks. By now you should see why having a good mental map really comes in handy... even if you know exactly which pins are overset, I can tell you it's easier said than done.

The general principle of reverse picking is to drop the tension very carefully, with a sort of pulsing motion, to catch the drivers on their way down. That's all there is to it, this is more practice than specific technique. Can be very tricky depending on the tolerances of the lock, but it's doable.

When I explain this to people, a common question is, why don't we just use a deep reach pick all the time and cut out all this nonsense? Well, the reason is that it's not always as easy (or possible) to use longer hooks in tighter keyways - and there's no point making things harder on yourself without good reason. Most locks don't have crazy bittings, so it makes sense to go with the most user friendly pick until the lock starts giving you problems. Honestly, you can pick the vast majority of locks with the basic short hook.

Let's recap
:

- Go easy on the pins at all times.

- Take mental notes as you go along.

- Always attack the pins from an angle, and keep the pick shaft as much out of the way of the other pins as possible.

- Don't try to achieve the impossible. If a pin won't set, make an educated guess as to why, and choose a more suitable pick. Or, in the case of oversetting, use reverse picking to correct the overset pin(s).

... and if all else fails, try picking in the opposite direction. Some locks will open relatively easily one way, and be downright impossible the other.

Section D: Raking

Raking exploits the same mechanical weaknesses as single pin picking, but we attack multiple pins at a time in order to set them randomly. When I say randomly, this refers more to the motion of the pick. Binding order still applies, we just don't really pay attention to it.

This gets a lot of stick in the hobbyist community, since lock picking is viewed as a puzzle, and raking takes away any element of that. Like solving a Rubik's cube with an algorithm, it's just not the same. To a point I agree, but I can't deny that it's fucking cool to open locks in 5 seconds flat.

This is no exaggeration, picking a lock in seconds is something games and movies aren't completely bullshitting about - even if it's not always portrayed realistically. Like when Matt Damon started a car ignition in the Bourne Supremacy, with what looks like the HPC Flip-It. Or picking with a bobby pin, and using a completely unmodified screwdriver as a tension wrench in Fallout. Seriously, all that high tech gear and no proper picks?

But I digress. Believe it or not, a shockingly high number of locks can be raked open, and many will open very quickly this way. Not quite as easy as it looks though... while it lacks the precision and finesse of SPP, a good raking technique still takes a hell of a lot of practice to develop. You need an extremely light touch, good tension control, and it's essential that you're able to make sense of all that scrambled up feedback. Some locks will rake open effortlessly, but most require a fairly specific combination of movement and tension to open with any kind of speed. It helps to have at least some SPP skills under your belt so you at least know the basics of what to feel for.

Whether or not a lock can be raked open easily, depends heavily on the bitting. If you look at the keys below, you'll notice the ones on the left all have something in common:



These are all very easy to rake because there isn't too much variation in height from one pin to the next, and they're mostly quite linear. The ones to the right, however, are considerably more difficult. None of them are impossible to rake open, but the alternating high/low cuts can make it very frustrating... some people are crazy at raking and can tackle bittings like this no problem, but personally I wouldn't chance it.

People ask about raking locks with security pins, so I'll toss in a brief bit about that... they do make it trickier, but not much. As long as the bitting isn't too crazy and you know the right way to adjust the tension, it'll still rake open with very little fuss. I'm gonna talk about security pins properly in the next section though. For now, we'll look at the general raking techniques.

By the way, when I talk about raking, I don't mean in the traditional sense. If you wanna get into semantics, raking in the true sense is applying tension and pushing down on all the pins with the pick - then pulling it out of the lock rapidly and repeating the process until the lock opens. This motion is identical to plucking a chicken, and can take just as long. I'll throw a quick rake into the mix once in a while, but I'd never do it just by itself. There are much better ways.

When raking, tension holds the same importance as with single pin picking. You can still get away with a general range, although you need to bounce the tension up and down within that range rather than just settling on one amount. Personally, I just keep the tension as low as possible and find it works very well with the following techniques:

1. Scrubbing - Moving the pick in and out across the pins. I do this with varying degrees of pressure against the pins, and alternating long/short strokes. I also try different angles. Most people do this at speed, but I prefer to move the pick fairly slowly. It's not like you're trying to finish yourself off before the wife gets back, you can take your time if you want.

2. Rocking - Inserting the pick fully into the lock, and pivoting it back and forth, while moving up and down. Like a see-saw on a bouncy castle.

Usually one or the other is enough, but I've found that by combining the two or switching back and forth between them is the most effective. Like I said, most locks will have a particular movement they respond best to, so by mixing it up a little you can find what the lock wants. You'll feel small changes in the plug as pins start to find their places, so when this happens, just stick to the general movements you're using and it usually isn't long before the lock is open. If it's being stubborn, finish off with a hook. Be very gentle though, most of the pins will be set and you don't wanna overset anything. Same rule again, don't try to force anything and you'll be fine.

When raking, you can place the tensioner wherever you want, although it's still best to give yourself as much room as possible for the simple fact that it may contain shallow pins and you don't wanna be oversetting too much.

Just experiment and see what works for the lock. Some may respond better to BOK (bottom of keyway... duh), so if you're not having any luck with TOK you might wanna try that for a short while instead to see what happens. Most of the time it makes no difference, but you might be pleasantly surprised. If it point blank refuses to open, try the other direction.

When raking a lock with spools, which are discussed in the following section, using feather light tension you'll drop into a false set fairly quickly and from there you just bounce the tension ever so slightly while raking. This takes a lot of getting used to, but when you get the hang of it, you'll discover that a lot of them will open just as quickly as those with regular pins. Sometimes you don't even drop into false at all.

That's pretty much all there is to it. Practice your ass off and see what works for you.

Section E: Security pins

There are many types of security pin, but we'll only be focusing on the most common ones. Security pins, or "anti-pick" pins as some call them, are designed to frustrate picking and slow you down. If you know what to feel for and how to deal with them though, in most cases they make very little difference. When it comes to standard cylinders, they'll defeat casual raking and pick gun attempts, but if you know what you're doing they're only a minor obstacle. Let's look at the 2 types of security pin most commonly used.

1. Spool pins

These are hands down the most widely used security pin. They come in many different configurations of long and short, fat and thin etc... but essentially they're all the same idea. Here are some examples of different spools:



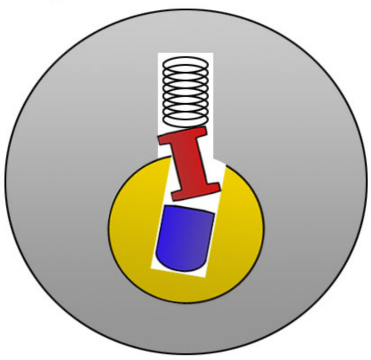
Most of the time, if a lock has spool pins you'll find that all are spooled apart from one. Plenty of locks contain all spools though, and you'll sometimes come across a lock with only 1-2 as well but this is much less common.

When picking a lock with spools, we do the exact same thing as with regular pins... look for binding pins and set them. Setting spools isn't as straightforward though, they can really frustrate the binding order so you need to pay attention. There are 2 different approaches you can take when dealing with these pins, but first we'll get the basics out of the way.

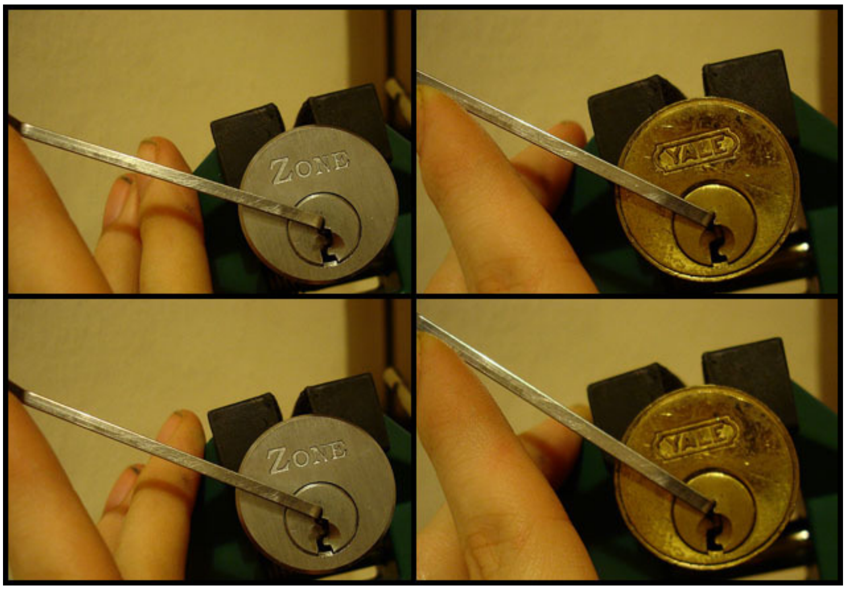
(a) How to set a spool pin

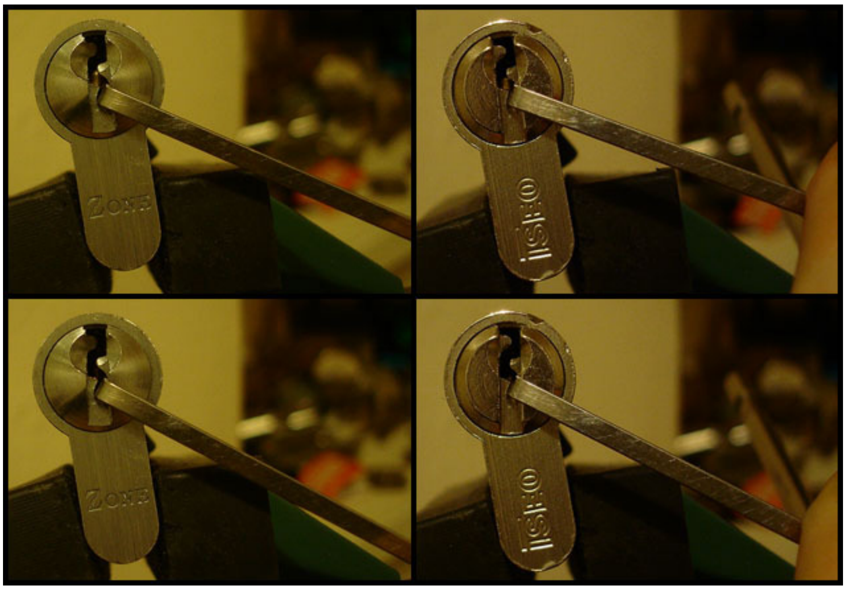
Let's say you have a lock with just one pin. Such a thing doesn't exist, but in the name of education let's pretend. If it's a regular pin, you apply tension and the pin binds. You lift it, and when it reaches the correct height the pins will shear. Lock open, easy peasy. Spools behave very differently though. When you apply tension, the plug will rotate a good few degrees and lock up in that position:

Fig. 8: Example of false set



Below are some real examples. The upper portions of the images show the locks at their normal rest positions, and false sets are underneath:





This is called a false set, and the amount of rotation you get depends on the dimensions of the spool. Long and thin will give a large false set, whereas short and fat will give a very small rotation. When dealing with spools, no matter how small the false set is, it will always be obvious. Trust me, you'll feel it in the wrench the same way you do when the lock is open, so don't worry about the different types.

Whatever shape the spools are, we tackle them the same way. When you lift a spool, it tries to straighten up and this forces the plug back in the opposite direction. This is called counter rotation, and in order to set the pin properly you need to just go with it and control your tension so that it doesn't go too far.

You want the plug to go back far enough to allow the pin over the shear line, but not so much that it drops any previously set pins. It's a simple case of pushing gently on the pin as normal, while reducing the tension very carefully until the pin sets. If you're doing it properly, as soon as the pin sets, your tension will carry it straight into false again and this continues until the lock is open.

Well, it's not quite as simple as that.

(b) True binding order vs. forcing false

Unlike regular pins, you'll get binding and counter rotation on any spool pin you push against, so you need to be a little more wary. Reason being, any spool will start to straighten out as you lift it... so if you're not paying attention and just setting the pins randomly, you could be there for a while.

For example, let's look at a a lock which is fully spooled and has a binding order of 2-4-1-5-3. If you just worked your way from back to front, because of pins resetting you'd be left with just pin 2 set and the others at rest. Working from back to front again you'd only have pins 2 and 1 set. After the third time you'd only have 2 and 4, but these are now in the correct order and neither will reset again.

Following this pattern, you'd be setting them in the order 5-4-3-2-1-5-4-3-1-5-3-1-5-3 before the lock opens. If you didn't just stick to that pattern and attempted to actually reset pins which dropped aswell, to be honest you'd be there all fucking day. And when it's possible to just do it in the correct order, that's a whole lot of bullshit if you ask me.

If you don't want these pins to drive you insane, you need to find the pin which is binding more than the others. Thankfully, this isn't too difficult. One of the pins will give very strong binding and counter rotation as soon as you push on it, and that's the one you want to look for. Any other pin will feel springy for a short distance then hit a "stop", at which point it'll give counter rotation.

So, you want to find the pin which feels solid and gives counter rotation straight away. If you do this, and keep a note of the order so you don't get confused between binding and set pins, you'll be able to blast through them in the correct order and they won't give you any trouble at all. And now you know how to determine the true binding order of a fully spooled lock. Nice. But what happens if we toss a regular pin or 2 in there? Prepare for fun.

Because of how a spool pin is shaped, there is a smaller area blocking the shear line. Let's say you have a lock with one regular pin and one spool... the spool can't possibly bind before the regular pin, meaning you can always set the regular pin first. This doesn't mean the regular pin actually sets first though.

As you know, with spools, just because you're getting counter rotation it doesn't mean you're on the correct pin. Likewise, just because the regular pin is binding it doesn't mean that one really sets first either.

(b.1) Forcing false

For this exercise we will be looking at a lock with 4 spools and one regular pin. To keep from frying your brain though, we'll take the binding order as 1-2-3-4-5. This isn't to patronise, honestly, you'll be glad we're doing it this way. We will take pin 4 as the regular pin. So you'd roll gently over the pins as normal and feel strong binding on pin 4, you'd set it, and this drops the lock into false.

If you decide to continue from here, the next pin you'll feel binding is pin 1, which you'll feel very strongly just by pushing gently on it like we discussed before. This is where things get interesting though... you'll get counter rotation and feel it set... but at the moment it sets, you also hear the click of pin 4 dropping back down. What just happened?

It's not because you didn't set pin 1 carefully enough, it's because 1 comes earlier in the true binding order. Just in case you weren't sure what was happening with those pins resetting in the previous section, I'll explain.

If you think about the simplified example of pins being bigger or smaller, pin 1 is bigger than 4. Obviously not in the middle, because 1 is a spool... but the "end" of pin 1 is wider than pin 4 so you can never set pin 1 without 4 dropping back down. And the same applies for any other pin which is "bigger" than it.

If you don't understand completely, go over that again cos otherwise this whole next part is gonna bamboozle you.

Ok, just to recap... you've set pin 4 and dropped into false, then set 1 which made 4 drop back down. The lock is no longer in false set, and pin 1 is the only one set. 4 will of course be binding again, so you'll set it again and drop straight back into false - at which point you'd feel pin 2 binding. As you can imagine, once you set that, 4 drops back down yet again. This pattern will continue until you set 4 when it's supposed to, which in this case is after pin 3.

In this particular lock, following this method the binding order would actually be 4-1-4-2-4-3-4-5. If you're wondering why it doesn't just change to 4-1-2-3-5 because of the regular pin, your ass in in detention again. The binding order is still 1-2-3-4-5, you're just having to reset 4 multiple times because you're setting it when it doesn't want to.

To give a couple more examples, if all were spools apart from 2, following this procedure the pins would set in the order 2-1-2-3-4-5. And if they were all spools except 3, it would be 3-1-3-2-3-4-5.

If pin 1 was the regular pin then it'd make no odds. Being the first in the true binding order, pin 1 would drop the lock into false and you'd be able to set 2-3-4-5 without 1 ever dropping back down. Providing you didn't ignore the binding and try to set the spools randomly like a jackass, it'd simply drop into false and you could set the spools in the correct order without any hassle because pin 1 would just stay put.

Just for the hell of it, if we changed pins 3 and 5 both to regular pins, the order would be 3-5-1-3-5-2-3-5-4-5.

By now you're probably thinking "fuck spools". It's ok though, we can still determine the true binding order... the regular pins just mean you don't have that nice false set the whole way through to make things easier.

(b.2) True binding order

Let's go back to the lock we looked at in the previous section, with a binding order of 1-2-3-4-5 and spools in every chamber except pin 4. As you know, when all the pins are at rest, you'll feel pin 4 binding more noticably than anything else. But that doesn't mean you have to set it... whereas you can set it at any time, you don't actually want to.

This time, after identifying pin 4 as the regular pin and resetting the lock, you want to ignore that one and test the other pins for binding first. With the regular pin blocking the shear line, the spools won't actually give any binding until they're almost set... so depending on the type of spool and the depth of the key pin, you might feel them right away with the normal gentle pressure, or you may need to push them fairly deep before they bind. When you're sure nothing else is binding, set the regular pin and continue picking the remaining spools as normal.

That's really all there is to it... again, good mental notes are a real help. Before the regular pin is set, all the others will either feel solid (set) or springy (maybe binding)... if it's not solid and you can't get it to bind, tackle the regular pin and when it drops into false you simply pick the spools in the correct order.

If we go back to our lock from earlier with the binding order 2-1-5-3-4, and pin 5 was the regular one, it'd go something like this... you'd set 5 and drop into false, reset, and feel 2 binding... so you'd set that, then 1. Pins 3 and 4 wouldn't give binding whatsoever so you'd set 5 and drop into false, clean up the remaining 2 spools and you're done. Let's recap:

- Feel for binding as normal.
- Pick the spools in the normal fashion, making sure only to pick those which give immediate binding and counter rotation
- Take mental notes as you set each pin, same rules as always... if it's already set, leave it the hell alone.
- If the first pin drops the lock straight into false, reset and feel for other pins binding first.
- Only set the regular pin when you're sure nothing else is binding.

Now to move onto something a little bit scarier...

2. Serrated pins

I'll be honest, I haven't got a hell of a lot of experience with these but I'll tell you everything I can. Unlike spool pins, these have a series of grooves milled out instead of having the whole middle section removed:



As you can see, I don't have pictures of many different types, but it's something. There can be any number of grooves, and they can be different depths as well. Some have shallow grooves the whole length of the pin, some are only half serrated, and so on. Have a look on Google and you'll see what I mean.

How much trouble these give you depends on the tolerances of the lock and the serrations themselves. They cost more to manufacture than spools so they're more commonly found in high security locks, but you can find them in some regular ones too. Trust me though, they're pretty rare outside the world of high security stuff.

Most serrated pins I've encountered are along the lines of the ones pictured above. Kaba GeGe and BS rated Yale cylinders use them, for example. Whatever pins you're dealing with, it's possible to tell the difference between real and false sets with practice... although it's easier with very shallow grooves. Reason being, you'll feel a dull click after very little movement and you can then push more clicks until you feel a nice crisp set. An example of these pins would be American brand padlocks.

As for picking the deeper ones like in the picture above, it's similar to getting false sets and picking your way out again like spools... only difference is there can be more than one false set on each pin, and when you pick your way out of one it doesn't always drop straight into another false. As long as you're careful and don't try to force anything, they shouldn't give you too much of a hard time.

The main thing with these pins is to use a combination of minimal pick pressure and the lightest tension you can get away with. All you need to do is find the binding pin, set it, then see if it'll lift any further. If it continues to lift into another set or gives counter rotation, go with it... but if it just lifts a little then hits a "ceiling" and doesn't wanna go any further, leave it the hell alone. Bear in mind that if a pin won't go any further, it doesn't necessarily mean it's set... sometimes you just can't tell, so never try to force anything or you'll risk oversetting.

If it doesn't wanna move with the same pressure it took to set the first time, leave it alone and look for another binding pin. Sometimes you can lift a binding pin and get multiple clicks in one go till it sets properly, other times it might click once and not want to go any further even if it's in false. So a pin you've just "set" may be set or you might have to come back to it again later... all you can really do is feel for binding, keep a mental note of the pins you think you've set, and don't touch them again unless nothing else is binding. And always, always be as gentle as possible when pushing against any pin. I can't stress that enough.

You'll probably find pins dropping at times, but don't panic as this doesn't necessarily mean you're in an overset. As long as you're being careful, it just means you're not setting in the right order... which is a lot harder to avoid than with spools, so just stick at it and try not to over think things. Personally I just keep picking, come back to any dropped pins when they're ready, and hope for the best. I've noticed with serrations that quite often you'll get to a point where everything feels very solid and locked up... from there you can increase the tension a little and give each pin a slight nudge, which will finish it off. If not, drop a couple of the pins back down and go over them again.

The other thing that can happen is, some pins will feel set but refuse to move and the others won't bind. This is a definite oversetting problem and if the lock you're working on does this nomatter how careful you are then you've got some serious mental mapping to do. Because of the serrations, the binding order is hard to keep tabs on, but if pins really like to overset then you haven't got much choice. Find your first binding pin, count how many clicks, move to the next one and do the same. Make a note of any time a pin drops and see if you can figure out which one is oversetting... to be completely honest, at this point for me it's guesswork and I have no solid method for figuring them out just yet. It's basically just trial and error and can take a considerable amount of time. Thankfully you won't need to worry about doing this very often.

Some people like to use reverse picking when it comes to serrated pins. Simple enough, just feel for the binding pin, overset it on purpose and catch it on the way back down. It can be done and it's great when it works, but wouldn't rely on it. Not just that it's tricky, but also because it's not uncommon to find serrated key pins as well... so if you try this method and the key pins are also serrated, the key pin will catch in a false groove on its way down and remain overset. Some lock companies really know their shit.

I wouldn't worry too much about serrated key pins in terms of normal picking, mostly they're very shallow grooves so you can tell the difference between real and false sets just fine. They're mainly there to frustrate raking etc. Some high security locks will incorporate spooled key pins and all sorts; I can only wish you the best of luck in those cases. If your mental mapping is good, you should be able to figure out if something funky is going on with the key pins.

That covers about everything I've learned about serrations from my experience, which admittedly isn't very much, but it'll get you off to a hell of a start anyway. Next we'll cover some questions and problems that rear their heads on a regular basis.

Part 4

FASQ

(Frequently Asked Stupid Questions)

To be fair, some of these aren't really that stupid. And some aren't really questions as such, either. Oh, and some aren't really that frequently asked either but they stuck in my mind. Look, I'm not making 20 separate sections for this non-sense.

1. ***"Help! I managed to pick this lock but it turned half way and now it's stuck."***

I struggle to think how people can't figure out why this happens. People have asked this question countless times, explaining in great detail how they're pushing the pins and can't feel anything. They want to know if the lock is broken or if it has some kind of special anti pick feature, and how do they fix it because it's the lock on their door and they're currently shitting their pants.

Just think about it for 2 seconds. The plug turned half way then stopped, what could it possibly be? The lock has pins up the top. Drivers and key pins. You picked it, and it got stuck half way. Think about which pins are where and you'll figure it out.

Because the lower portion of the keyway is often slightly wider than the pins, the springs will force the drivers into the gap a little. This doesn't happen with the key because it fills the entire keyway and there's nowhere for the drivers to drop into. So if you're smart, you'll be able to tell that all you have to do is push them all up at the same time so they're out of the keyway and you can turn it again. Doesn't always happen, but when it does there is no panic. I've heard of drivers dropping into the keyway and springs getting fucked up, but I can only see this happening if the drivers are very short and there is seriously excessive wear in the keyway.

2. ***"I pushed all the pins up but the lock won't open. What am I doing wrong?"***

Half of me really hopes that people are joking when they ask this. The other half is crying, because they might not be. If you're genuinely asking this, you have some serious reading to do before you start trying to pick anything.

3. ***"Can you really pick a lock with bobby pins/paper clips?"***

You sure can. Not so much with paper clips though, the metal generally isn't strong enough and it has no spring to it. Not to mention they're far too thick, although if it's an american keyway like a Schlage (SC1) or Kwikset (KW1) you could get away with it. At any rate, it wouldn't be my first choice... you can rake open a wafer lock easily enough with one, but anything that'll put the slightest bit of stress on the clip will just make things awkward.

Bobby pins are better, although using anything along these lines isn't easy even for a seasoned picker. But it can be done, yes... in all honesty they're best reserved for simple mechanisms such as warded padlocks, or wafer locks. You can also use them to bypass certain padlocks, aswell as handcuffs etc.

Just in case you're wondering... wafer locks use spring loaded, hollow metal plates which are pulled into the plug by the key to allow it to rotate. Picking these is the same principle as pin tumblers, but they're infinitely shittier and require virtually no skill. They can either be single or double sided.

Warded padlocks have a simple spring loaded latch towards the back, which is actuated by the tip of the key when turned. There is a series of wards inside the lock body which correspond to cuts on the key, so where there is a ward, there is a cut which allows the key to turn past it. The wards are what block the rotation of incorrect keys, so a simple L-shaped wire is all you need to reach in and spring the latch.

4. ***"I know you can pick a lock open, but is it possible to LOCK a lock? Or do you need special tools?"***

Detention. NOW. The answer is staring you in the fucking face.

5. ***"How do comb picks work? Should I get some?"***

Comb picks work by pushing the entire pin stacks completely out of the plug, which allows the plug to turn. You can buy some if you want, I'm not gonna stop you. But the commercial ones aren't very good, they're designed solely for padlocks and the only ones they work on are really shitty and can be opened just as easily using other methods. Such as bypassing the latch from the inside, or with butterfly shims.

6. *"What about shims?"*

Butterfly shims really suck in my opinion. They're good for combination dial padlocks and that's about it... same as comb picks, they only work on very cheap locks which are so easy to pick there's just no point.

If the cylinder is fucked and I literally can't pick it, then I'd try to retract the latch through the keyway. Shims are a last ditch effort cos they're so fiddly, and sometimes you need one for each side, which can be a real pain to do... even then, not every lock which uses standard latches can be shimmed in this fashion. They're overrated if you ask me, I wouldn't bother with them unless you can get them very cheap.

Someone is bound to ask, so I'll explain the latch bypass... in many cheap brass/iron padlocks, you can hook into the latch through the keyway and pull it back. The easiest way to explain this is to use a hook, and with the pins at the bottom, insert it all the way into the plug and push the pins down with the hook facing away from them. Then slide it forwards a little, and use a gentle levering action to feel for any spring resistance. It'll be a fairly strong spring, but once you're on it, enough pressure will retract the latch fully and pop the shackle.

Same as with shims, this won't always work... even if you can retract the latch, sometimes it doesn't do the trick. And if the lock has a ball bearing mechanism, both this and shimming are completely out of the question. In this mechanism, there is a rotating cam with grooves cut opposite each other, and a ball bearing sits in each one. In the locked position, everything is completely solid and the cam must be rotated in order to free the shackle.

7. *"How do I pick this lock? It's a <insert vague description or exact make/model here>"*

If you're asking this after a very short period of time picking, then it's usually just a matter of practice. Before asking this, see what info you can find online. If the lock is branded and you can't find anything about your lock online, it's almost always a cheap piece of crap and you just need more practice.

If you have a lock with no markings whatsoever, use your judgement. If it looks and feels like a cheap piece of crap then it most likely is... although there are plenty of lock manufacturers who don't put any branding on locks at times, high security included. For example, I have an EVVA lock with no branding or serial number whatsoever. The only way I know who it's made by is because I have the original keys, but without those it's obviously not just another cheap no-name cylinder. High quality locks always have very clean finishes, serious weight, and odd keyways.

If you have an unbranded lock and are curious about it, take a pic and ask someone. We can tell pretty much any high security lock just by its keyway, so don't be shy asking. Just use your judgement first, if it's a cheap lock then there's no point cos we'll just tell you to keep practicing.

8. *"What is the best pick for <insert vague description or exact make/model here>?"*

There is no "best pick" for any particular lock. If you've tried all your picks and the lock won't open, it's not the picks. Stop trying a different pick every 30 seconds and concentrate on what you're doing. Technique is the most important thing, usually a short or medium hook is all you need - and if a lock isn't playing ball, you should be able to tell why and choose a different pick based on that. If you still can't get it open, just be thankful that you at least know why. Maybe make a custom pick just for that lock.

But if you do insist on asking other people, make sure you can explain exactly what's happening or you're only gonna get general advice. 9 times outta 10 when someone asks this, it's because they don't really know what they're doing and their normal technique of wiggling the picks around isn't doing the trick. So what they're really asking is, "what is the best pick I can use to get lucky"... which is like asking the best shoes to wear if you have to walk somewhere blindfolded. Learn the shit properly, concentrate on what you're doing, and practice.

9. ***"I understand how to pick spools, but what about mushrooms?"***

The only locks I've picked with mushroom pins are a few older Yales, and Medeco. From my limited experience I can tell you that they pick in the exact same way. Don't give them too much thought, if you've got a lock with mushrooms and it's giving you shit, it probably isn't down to the pins.

10. ***"Which pick set should I get?" and "US or Slimline?"***

Entirely up to you. Get something small which contains the basics, not some huge fancy kit with loads of stuff you'll never use. The better you get, the less picks you'll use. And trust me, as a beginner you could do without the temptation of trying a different pick every 30 seconds because the lock isn't opening. Been there, done that.

It doesn't matter if you get US or slimline picks, there is difference but in all honesty it doesn't matter too much. You only really need slimlines for tight keyways. And by tight, I don't mean Yale. Even a brand new Yale with hardly any wear isn't that tight... compared to a US keyway like a Kwikset or Schlage it is, but you can use standard sized picks on them just fine. Examples of standard locks with tight keyways would be Corbin or Asec... and that's about all I can think of. You can get away with standard sized picks for most stuff, but buy what you want.

A lot of newbies are tempted by gadget type picks like folding jackknife sets, pen picks, credit card picks etc. I guess if you turn out to really suck at picking, you'll at least have those cool picks to show off... just pray nobody asks you to demonstrate!!

If you want something you can actually learn with, do yourself a favour and stay away from them or at least buy a proper set with individual picks as well. Gadgety stuff is fine once you know what you're doing, but they're still novelty items and only designed for emergencies when you have nothing else to hand. If I had to though, I'd choose a jackknife over any other type because they're the most convenient to use. They're not as badly balanced as pen picks and there isn't as much crap to keep organised - and comfy to hold compared to credit card picks, which are very fiddly.

11. *"Where do I get locks from? What is a good beginner lock?"*

This isn't a stupid question, don't worry. You can get locks nice and cheap on ebay, from flea markets, or get this... at the locksmiths. I strongly recommend you stick to the smaller, independent locksmith shops because they're friendlier and you can actually have a conversation with them. In larger places, they have a tendency to give you strange looks and they can become quite short with you for no apparent reason. I get the feeling from places I've been in before that if you're not there to have keys cut or buy something expensive, they can't get you out of there quick enough.

On the other hand, I've had nothing but pleasant experiences in smaller shops. But if you're really stuck, you can try the hardware shop... basically anything you can find there for under £10 ($15-20 for the Americans) is probably beginner level.

And that covers just about everything I can think of. Hopefully I've covered everything you'd want to know so far, maybe you've even picked your first lock by now! If you have any comments or questions, sign up to keypicking.com and dbc-locksmiths.forumotion.com - you can meet myself and a bunch of other great people there, and we're always happy to help.

One last piece of advice, remember the 3 P's - practice, patience and persistence. Without a shitload of all 3, you'll only level out at pretty basic stuff - and even then, it'll still be half luck. Good luck!

Thanks for reading,
M. Gibson

CREDITS

People who are an inspiration, a great help, or just good fellas in general.

Awol70 (wizwazzle) - what else can I say, just a fantastic picker. Not much this man can't open!

bezza1 - an alcoholic lumberjack with the most serious lock addiction known to man.

Bill Telford - A very skilled picker when he can resist the urge to rake. Aaaaaaaaaaaaaaaaaaaaaaaarsec!!!

Bouncer965 - a great picker who disappeared as quickly as he picked up the skills. Where did he go?

Coachno2 - for digging Daz out of the snow.

Darkhorse - a great picker, master of lever padlocks, and very generous to boot.

Daz - true gentleman, and the man behind DBC locksmiths.

Elbowmacaroni - a tech genius.

Hallis Chalmers - for keeping keypicking up and running and ruling with an iron (or is it brass?) fist.

JRuther2 - a very generous guy, with some serious skills.

Keyvinco & Ele - I'm not sure who is the better picker between the two, but it's probably not wise to say it either way!

Kokomolock - for his generosity, picking skills and knowledge. Also a great pick maker.

LocksmithArmy - a man who has proven himself time and time again, one of the best pickers out there.

Merecat - the man who can impression just about anything, in the worlds coldest shed.

Orc - for his sense of humour and picking skills. Also the man responsible for putting this into pdf. Legend!

Pickwizard - lever lifter extraordinaire.

Raf - the king of Mul-T-Locks.

Rickthepick - for his seemingly endless supply of locks, and unbeatable prices.

RiteSedFred - a scarily well talented picker.

RosinDubh37713 - another amazing picker, unfortunately not so active these days. Come back!!

S1DESHOWMICK - the lockwood slayer.

Satan - for his wicked (and often inappropriate) sense of humour. Another very good picker.

Tooly McGee - crazy picking and toolmaking skills. And for putting up with kokomo!

Waddac2 - for his bright white shirts and lenny the laser.

Xe0 & Xrax - a couple of naturals. Xe0 is the fucking Medeco slayer.

And the rest!!! Shoutouts go to:

2td
American lockpicker
b0etz
Bernie (Mortice Picker)
bobcat5am
chriswingate
crash override
GhostRider
Imschatten360
mentoOsmann
mrbacklion1
omegared
paullocksmith
redbird1983
safelocks
sneekypeeks
Tarquin

Apologies if I left anyone out, I looked through a bunch of stuff to try and put together as many of you as I could. There are just so many great people on the forums and youtube that it's hard to keep track of you all.